



CALIFORNIA ISO

California Independent
System Operator

Existing RMR Process, Criteria and Methodology

California Energy Commission
WORKSHOP ON THE
AGING POWER PLANT STUDY
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Catalin Micsa
Grid Planning



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Reliability Must Run (RMR)

Contracts

- Maintain required system performance in transmission deficient areas
- For local areas only
- Provides mechanism for California ratepayers to mitigate reliability and market power issues at a reasonable cost
- Managed by the CAISO

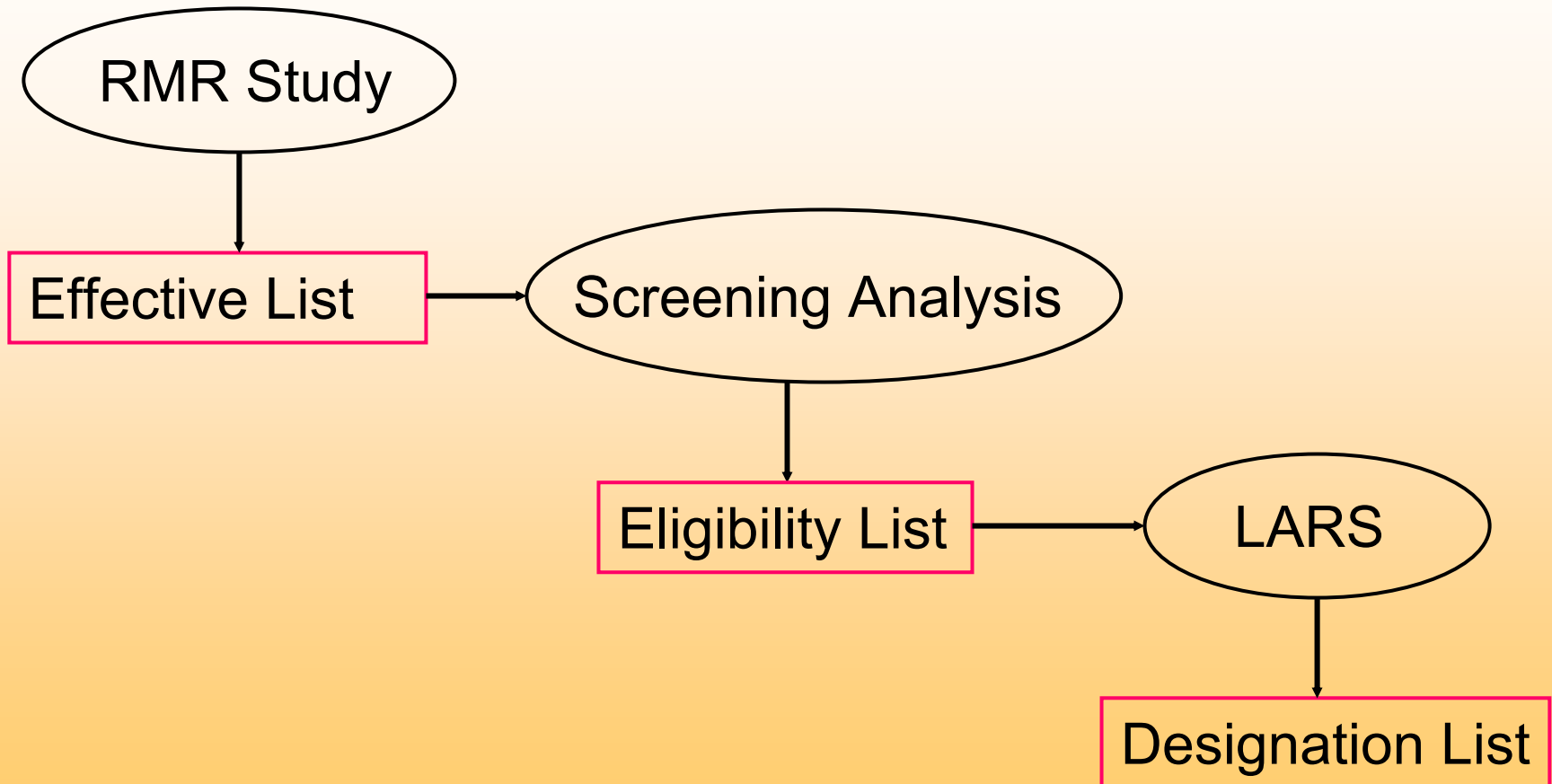


What RMR Studies Do

- Identify minimum MW of “market generation” capacity needed on-line in order to reliably serve local area load.
- Identify RMR generator units effective in meeting the requirements and determine the effectiveness of the identified generation units on mitigating local area reliability constraints



The RMR/LARS Process





RMR Criteria

Contingencies

- Generating unit outage
- Transmission line outage
- Transformer outage
- Key generating unit out, system readjusted, followed by a transmission line outage



RMR Criteria

Studies

- Power flow - all contingencies
check Thermal and Voltage Criteria
- Post Transient load flow – selected
check Reactive Margin Criteria
- Stability assessment – selected
check Stability Criteria



Study Methodology

- Develop accurate cases based on stakeholder input
- Determine RMR requirements
- Identify generator unit effectiveness in each RMR area



Screening Analysis

Generation that is not eligible to receive an RMR contract:

- State/Federal/Municipal units
- Units rated less than 10 MW
- Units under “Unit specific long term contract”



State/Federal/Municipally-Owned Units

Determination of exclusion from RMR Eligibility per ISO Board decision, based on the following:

- The units are under performance contracts or mutual assistance agreements,
- Are required to satisfy native load requirements of their owners, and
- Are all presumed to be on-line absent a demonstration to the contrary.



Units Rated Less Than 10 MW

Determination of exclusion from RMR Eligibility per ISO Board decision, based on the following:

- It is not practical for the ISO to administer large numbers of RMR contracts for small units,
- The contribution of these units is very small, and
- Reliability is maintained through operational mitigation.



Units under “Unit specific long term contract”

Determination of exclusion from RMR Eligibility is based on the following:

- The units have an assured revenue stream and are under unit or site specific performance contracts,
- The seasons, times of day and number of hours under the contract overlap or exceed the RMR needs for this area, and
- Depending on the situation, the ISO may need to receive some dispatch rights from the owner of the “contractual output”.



LARS - Local Area Reliability Service

- ISO Issues RFP (Request for Proposal) to provide RMR Service
 - Generation
 - Transmission
 - Demand
- ISO Staff Evaluates Proposals
- ISO Board Approves Final Designation



Final LARS Designation

The final unit designation has to be the most economic set of units that satisfy all the operational requirements and constraints in one area (including all it's sub-areas).

Each RMR unit has to comply with all local, state and federal mandated rules and regulations (including NOx and other emissions).